



## LOKUS A-4 – STANDALONE RF CONTROLLER / RECEIVER

The Lokus A-4 is a controller with built-in RF receiver. It is designed for residential and business buildings, shops, etc. In various operation modes, the controller allows access for up to 34 users (1 master button + 34 user buttons on remote controllers). The entire set-up procedure is carried out with master remote controller Remo. User Remos can either be registered or deleted. The controller signals normal operation with flashing red and green LED. It can also be used as a Wiegand 26-bit reader, if needed.

### TECHNICAL DATA

LOKUS A-4	
Reading frequency	433MHz
Reading distance	Up to 50m
Current consumption	20mA
Operating voltage	From 9V to 14V DC
Operating temperature	From -20°C to 70°C
Protection	IP65
Memory	34 buttons
Inputs	Door status Push button
Outputs	Transistor output for el. strike 0.5A
Cabel	Cable through or on the wall – 3m
Dimensions (mm)	120x96x15 (WxHxD)

### CONNECTION CABLE

Wire-Color	Description/Wiegand 26-bit	Specification
1 – red	9-14V DC	Power supply
2 – gray/black	GND	Ground
3 – green	El. strike output / Data 0	Max. 0,5A Active = GND
4 – white	Not connected/ Data 1	Active = GND
5 – yellow	Door switch input / Buzzer input	Active = GND
6 – orange	Push button input / LED input	Active = GND

### LED DIODES

Color	Description
Flashing red/green	Normal mode
Lit green	El. strike is unlocked
Lit red	Button has no rights

### Power supply

The controller needs external power supply to operate. The Spider W40 power supply is sufficient to power two controllers and two 12V electric strikes or two 12V magnetic locks (0.5A). If you use the controller and low consumption electric strike (0.25A) you can use power supply Spider W5.

### Voltage drops and cable signal interferences

When you connect the controller, use cable with a diameter of at least 0.22mm<sup>2</sup>. If the cable length exceeds 25m, use one twisted pair of UTP cables for the positive (+) pole and one for the negative (-) pole. The cable length between the power supply and controller should not exceed 50m.

Take into consideration that a 0.22mm<sup>2</sup> cable has a resistance of approximately 9 ohm per 100m. The power supply at the end of cable, should be a minimum of 9V. If you are using el. strike, it is highly recommended that the voltage drop is calculated. At greater distances, a thicker cable of 0.5mm<sup>2</sup> or more should be used wherever possible.

If the load is, for example, 0.5A (with el. strike) then, on the 0.22mm<sup>2</sup> cable voltage drop will be 4.5V at 100m. For the device with 60mA consumption, the voltage drop is 0.5V.

Reading distance depends on installation site. The proximity of metal or EM interference significantly reduces reading distance.

### Installation of Lokus A-4

A special holder, provided with the controller, is needed for its attachment to the wall. Two screws are enclosed in the box. After the holder has been affixed, put the controller onto the holder and press – after you hear the click, it is fixed.

If you want to remove the controller from the wall, put the screwdriver under the controller's casing (as close as possible to the holder's attachment points) and turn it gently.

If you will install two controllers closer than 50m from the place where the remote controller will be used, than both controllers can receive the code. Dont install the controller directly on metal.

Installation holder for A box.



### Inputs, outputs and environment

#### Inputs:

Inputs are realized with opto-isolators. The input is active, when pulled to Ground with an open collector transistor or mechanical switch, which is connecting the input pin of the controller to the Ground.

#### Outputs:

Output has a pre-installed protection diode for inductive load. It is also protected from current overload. The best way is to use a 0.25A el. strike or a 0.5A el. magnet, which has to be connected to the same positive pole (+) as the controller. Connect the negative pole (-) to the door strike output (wire 3). When the output is active it is pulled to ground. This can be changed with function 5 – negate output (for el. magnet).

#### Environment:

The controller has IP65 protection, but you must assure good cable joints, protected against moisture, otherwise corrosion may damage the controller. Damage in such cases is not covered by the warranty.



## PROGRAMMING

The entire set-up procedure is carried out with the master remote controller Remo.

**The master Remo RF transmitter cannot be replaced or duplicated. After registration the master Remo should always be kept in a secure place. You cannot change any setting without it and neither can we. Keep that in mind when storing the master Remo.**

### Programming Lokus A-4 with the master remote

**By Default every button on the Remo sends a different code. So every button can present a different user to the controller. You can set all three buttons on the Remo, to send the same code. Read the Remo's user manual.**

#### First connection to power supply and registration of master Remo:

Turn the power supply on (2 beeps indicate power on) and press the button on a Remo you wish to be the master button (3 beeps indicate a successful registration). The first button registered becomes the **master button (master Remo)**. All other buttons will be registered as **user buttons (user Remo)**.

#### Usage of master remote:

Every time you press the master button, a double beep is heard. The number of double beeps indicates the programming function.

### PROGRAMMING FUNCTIONS WITH MASTER REMOTE

Function	Description
1	Register or delete user buttons
2	Pulse time/ Duration of active output or toggle mode
3	Door status switch input/ time till pre-alarm
4	Pre-alarm and alarm/ duration of pre-alarm
5	Negate output
6	Delete a lost remote controller (button)
7	Delete a lost remote controller (button)
9	Switch to Wiegand 26-bit
13	Delete all

#### Function 1) User buttons

Register or delete user buttons.

##### Setup:

Press the master button (1 double beep) and within a period of three seconds press a user button. A user button is now registered and with it you can open output on the controller. If the button has already been registered, it is now deleted. Next button you register will take its position. To delete the user button, when remote controller was lost, you need to maintain a list of registered buttons, arranged in order of registrations.

#### Function 2) Pulse time/ Duration of active output or toggle mode

Set the duration of active output/ the time in which you can open door or set output to toggle mode. Toggle mode means, if the button is registered, output will remain opened (if it was closed) or closed (if it was open) till next registration.

##### Set the duration of active output:

Press the master button 2 times (2 double beeps). The controller will start to beep every second. Each beep indicates 1 second of active output. Duration of active output can be max. 10 seconds. When you hear the required number of beeps, press a user button for confirmation.

##### Set toggle mode:

Press the master button 2 times (2 double beeps). Press a user button before first beep. Toggle mode is selected.

#### Function 3) Door status switch input

Set the time till pre-alarm / time in which doors can be opened, without triggering pre-alarm and consequently the alarm. This function is used when the door switch on el. strike is connected to Input0/I0/wire 5 on the controller.

##### Setup:

Press the master button 3 times (3 double beeps). The controller will start to beep every second. Each beep indicates 1 second till pre-alarm. Duration of the time till pre-alarm can be max. 10 seconds. When you hear the required number of beeps, press a user button for confirmation.

#### Function 4) Pre-alarm and alarm/ duration of pre-alarm

Set pre-alarm time. This is time in which the controller alerts you, with short beeps, that doors were left opened. If you don't close doors in pre-alarm time, alarm will be triggered and the controller will alert you with long beeps.

##### Setup:

Press the master button 4 times (4 double beeps). The controller will start to beep every second. Each beep indicates 1 second of the pre-alarm time. Duration of the pre-alarm time can be max. 10 seconds. When you hear the required number of beeps, press a user button for confirmation.

#### Function 5) Negate / switch output state

This function is used, when you connect an electric strike or electric magnet which needs power supply to remain in locked state.

##### Setup:

Press the master button 5 times (5 double beeps) and within a period of three seconds press a user button for confirmation. The output state will be switched from the current one.

#### Function 6) Delete a lost remote controller (button)

Delete the next button on the list. Use this function if you lost a remote controller and you wish to delete it from the controller. In order to use this function you must maintain a list of registered buttons, arranged by order of registrations so that you can find the button, which was registered before the lost one.

##### Setup:

Press the master button 6 times (6 double beeps) and within a period of three seconds press the user button, which was registered **before** the lost one. The user button, on lost Remo, is deleted. Next registered button will take its position on the list.

#### Function 7) Delete a lost remote controller (button)

Delete the previous button on the list. Use this function if you lost a remote controller and you wish to delete it from the controller. In order to use this function you must maintain a list of registered buttons, arranged by order of registrations so that you can find the button, which was registered after the lost one.

##### Setup:

Press the master button 7 times (7 double beeps) and within a period of three seconds press the user button, which was registered **after** the lost one. The user button, on lost Remo, is deleted. Next registered button will take its position on the list.

#### Function 9) Switch to Wiegand 26-bit

Switch between the controller and Wiegand 26-bit reader. When you switch the controller on, it beeps twice in the controller mode and once in the Wiegand 26-bit mode.

##### Switch to Wiegand 26-bit:

Press the master button 9 times (9 double beeps). The controller will start to beep every second. Each beep presents different function, which is selected with a user button.

**1. beep** – If a user button is pressed after 2 beep, the controller will switch to Wiegand 26-bit reader and will delete everything.

**2. beep** – If a user button is pressed after 2 beeps, all data will be deleted. The controller will be reset to default.

##### Switch from Wiegand 26-bit to controller:

Right after turning the power supply on, when the controller has both LEDs lit, press a user button 9 times (9 beeps).



### Function 13) Delete all

#### Reset/ delete all data to default:

Press the master button 13 times (13 double beeps) and within a period of three seconds press a user button. This will delete all data and reset the controller to default settings. The controller will confirm this with a long beep, followed by a double beep.

#### Default settings:

A three-second pulse, five-second open time, four-second pre-alarm time, door switch and push button have NO contact; output is set for fail secure el. strike. The controller is in standalone mode.

## ORDERING CODES

### LOKUS [box]-[card]

Box: **A**

Card: **4** – reading frequency 433 MHz (RF Transmitters)

Code	Specification
<b>LOKUS A-4</b>	Standalone RF controller/ receiver in <b>A</b> box, Frequency 433MHz
<b>REMO E-V9</b>	RF transmitter in <b>E</b> box, 433MHz (remote controller)

## OTHER

Warranty only applies when Lokus controller is powered with power supply from the Spider family.

Please read through our warranty and disclaimer statements.

Connection scheme and additional support for the use of this product can be found on:

<http://www.jantar.si/forum/en>

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